Study To Assess The Awareness, Perception And Myths Regarding Swine Flu Prevention In Students Of Nursing College at Tertiary Care Centre In Ahmedabad

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Abstracts: Background: Medical and paramedical health workers are especially vulnerable to swine flu infection as they come in regular contact with patients. They can also serve as important channels for communication of swine flu awareness to the general population. This study was carried out to find out the knowledge, attitude and practices amongst the nursing students of a tertiary care centre. Methodology**:** A hospital based cross sectional study carried out in February 2015 amongst the students of nursing college affiliated to a tertiary care centre in Ahmedabad. A pretested questionnaire was given to the students with multiple choice questions regarding swine flu virus, its symptoms, prevention etc. Results: A total of 108 students responded to the questionnaire. Of these maximum 76% respondents had received information from hospital. Majority of respondents knew about causative organism. Cough(81%), cold(93%) and fever(77%) were believed to be the commonest symptoms of swine flu. Handwashing as a preventive measure was known to only 45% while use of mask was known to 90%. 43% knew about vaccine availability and 83% were scared of swine flu commonest reasons being fear of death and fast spread. Conclusion **:** In the present study hospital, TV and newspapers were the major sources of information. It is therefore essential that these media spread correct information amongst the general population as well as the paramedical workers who are at risk for swine flu. The paramedical staff's confidence and active participation thus remains critical in enforcing any prevention and control strategy against the disease. Paramedical workers had good knowledge, attitude and practice regarding swine flu in the current study. This should be utilized to spread knowledge and awareness amongst the general population.[12] Focus on key areas like hand washing with soap and water and availability of vaccine, knowledge regarding which was lacking in the present study, should be immediately addressed. This represents the mass hysteria and panic amongst the general population regarding the disease and its prevention. It needs to be explained that swine flu, with proper precautions can be prevented and epidemic can be controlled through awareness and correct practices. [Vasavada H NJIRM 2015; 6(2):26-30]

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Introduction: Swine flu has created a massive panic among the people of India and has created fear across various strata of society.[1] Especially vulnerable are the medical and paramedical health workers who come in regular contact with affected patients and treat them regardless of risk to themselves. It is therefore important to protect this group of people by making them aware about safety precautions they have to follow to reduce chances of contagious spread of the disease.

In April 2009, a new strain of influenza virus-A/H1N1, commonly referred to as 'swine flu' began to spread in several countries of the world.[2] Despite being named 'swine' flu it was found to spread from person-to-person also, leading WHO to declare it as a full global pandemic.[3]

5 years down the line, statistics of H1N1 positivity and mortality thereof justify this declaration. In first two months of 2015, Gujarat is one of the worst affected states[4], with mortality recorded as high as 219/ 3337(6.56%) and 54/1400(3.85%) positive cases in Ahmedabad till date. (24/2/15) Strategies to prevent the transmission are in place at each and every level but as citizens it is our responsibility to be aware of the happenings and follow the recommendations for prevention. This is especially true for paramedical personnel who are usually the first contact with the patients and also important media for communication regarding control strategies in general population. Without unambiguous information, stigmatization and panic can spread among them.[5]

Thus, this study was undertaken to gauge the level of awareness regarding different aspects of swine flu so that corrective measures can be taken to burst myths and reinforce safety protection measures amongst student nurses and thence into the other PMWs and general public.

Material and Methods:

Type of study: Hospital based cross-sectional study.

Place of study: Nursing College affiliated to a teaching hospital in Ahmedabad.

Time of study: February 2015

Quantitative information regarding demographic features, current knowledge, perceptions and myths regarding swine flu among nursing students was collected using a pre-designed and pre-tested questionnaire. This pre-designed questionnaire consisted of socio demographic characteristics (e.g. age, sex, religion), knowledge and awareness about the disease (nature, mode of transmission, clinical features and preventive measures). It was of multiple choice types with maximum possible objectivity maintained. The questionnaire was drafted in English language and translated to the vernacular language (Gujarati). Consent of the participants was taken and they were given choice of language. There were no refusals, as complete anonymity was assured. The information thus collected was entered in Microsoft Excel sheet and analyzed using appropriate statistical methods.

Results: A total of 108 students were studied. All were in the age group of 18-24 years. Their socio demographic profile was as follows:

Table 1: Sociodemographic Characteristics

Characteristics	Number	Percentage (n=108)
Gender		
Male	12	11.1
Female	96	88.8
Religion		
Hindu	44	40.7
Muslim	24	22.22
Christian	40	37.03
Year of study in nursing		
1st year	42	38.8
2nd year	36	33.3
3rd year	30	27.9

Out of the total participants, 96(88.8%) were females and 12(11.1%) were males. Hindus represented 40.7% of the total participants while Christians were 37.03% and Muslims were 22.22%.

Table 2: Source of information about swine flu

Source	Number	Percentage(%)
Hospital	83	76.85
TV	33	30.55
Newspaper	49	45.37
Internet	31	28.70
Poster/Hoarding	30	27.77
Others	27	25.55

Majority of the participants said that they had obtained information about swine flu from the hospital (76.8%). Other major sources of information were TV, newspaper, internet, poster/hoarding and others including radio, friends and relatives etc.

Table 3: Causative organism

Organism	Number	Percentage(%)
Virus	77	71.29
Bacteria	15	13.88
Others	1	0.92
Don't know	6	5.55

Of the total population under study, 77 students (71.29%) knew that swine flu is caused by virus. Around 5% students had no idea about causative organism of swine flu. 86 knew that name of virus is H1N1.

Table 4: Symptoms swine of flu known to participants

Symptom	Number	Percentage
Fever	81	75.0
Cough	93	86.11
Common cold	90	83.33
Breathlessness	58	53.70
Bodyache	49	45.37
Headache	61	56.48
Diarrhea-vomiting	40	37.03
Abdominal pain	22	20.37

Fever(75%), cough(86%) and common cold(83%) were the commonest symptoms known to participants. About half of them knew that breathlessness, bodyache and headache can occur in patients with swine flu. Diarrhea and abdominal pain were known to lesser number of participants as being symptoms of swine flu.

Table 5: Knowledge of Sample to be collected

Sample	Number	Percentage
Throat swab	78	72.22
Blood	63	58.33
Urine	8	7.40
Stool	5	4.62

Sputum	38	35.18
Others	3	2.77

Regarding sample to be collected for detection of swine flu virus, 78% knew that throat swab is used while 58% believed that blood is collected for testing.

Table 6: Attitude regarding prevention of swine flu

Preventive measure	Number	Percentage
Hand washing	49	45.37
Avoid crowded places	42	38.88
Avoid people with cough-cold	59	54.62
Mask	97	89.81

While mask as a preventive measure against swine flu was known to almost 90% of participants, only 45% knew about the importance of handwashing and 49% knew about avoiding crowded gatherings as a means of preventing spread of the H1N1 virus.

Table 7: Practice regarding hand washing

Liquid used	Number	Percentage
Water	5	4.62
Soap and water	51	47.22
Dettol	82	75.92
Savlon	16	14.81

Soap and water as the preferred choice for handwashing was known to only 47.22% participants while 75% believed that dettol was required for handwashing.

Table 8: Preventive measures followed by participants following contact with H1N1 positive patient

Preventive measure	Number	Percentage
Cough cold prevention	71	65.74
Tab Osteltamivir	61	56.48
Hand hygiene maintainance	57	52.77
Leave from college	6	5.55

Of the total students enrolled in the study, 52.77% practiced hand hygiene maintenance following exposure to H1N1 positive patient, 56% knew about prophylactic osteltamvir in case of exposure. Around 5.5% respondents falsely believed that they need home isolation if exposed to a positive case.

Table 9: Knowledge about availability of vaccine

Vaccine availability	Number	Percentage
Yes	47	43.52
No	46	42.59
Don't know	3	2.77

Only 43.52% respondents believed that vaccine against swine flu is available while 42.59% said that no vaccine against swine flu is available. 89 participants (82.4%) were scared of swine flu.

Table 10: Why scared of swine flu?

Cause	Number	Percentage
Can occur to anybody	41	37.96
Death may occur	59	54.63
Fast spread	40	37.03

When asked the reason for the scare, 54% said it was for the fear of mortality, while 37% each believed that it is scary because it can occur to anybody and spreads fast.

Discussion: Paramedical workers especially nursing staff in a tertiary care setting is at a higher risk for acquiring and transmitting infection during an epidemic. If the knowledge, attitude and practice among nursing students are optimum, it can go a long way in limiting spread and disseminating information regarding swine flu amongst the general public. 6 years following the first pandemic of H1N1 worldwide, and with the 2015 Gujarat epidemic being severe with high mortality, the question remains whether the hospitals and media have been successful in spreading awareness regarding correct practices for prevention of swine flu. Mass hysteria and panic created in these situations can lead to false propaganda and number of rumors and myths regarding swine flu.

Hospital was the source of information in majority of the students; hence care must be taken to dissipate correct information through various IEC activities in the hospital. Special training sessions can be held. Similar study done in Pondicherry[6]

showed that 53% paramedics received information regarding swine flu from hospitals while highest percentage-67% participants mentioned TV as a source of information. Amongst studies done in educated urban population in Patiala[7] TV and news channel were the source of information in 76% patients. In another study in Karnataka[8], 52.2% participants described tele-media as the source of information and 2.7% received information from health care workers.

Knowledge regarding causative organism was good, with 71% participants knowing that it is caused by virus. Out of the total participants who knew about virus as the causative organism, 76% also knew the name of the virus-H1N1. In the study in Patiala[7] 46% respondents knew the name of the virus.

Knowledge about signs-symptoms of swine flu was good, with 75% respondents knowing that fever were a symptom, 86% saying cough was a symptom and 83% saying runny nose was a symptom. Almost half of the participants knew about breathlessness, headache and body ache as a symptom. Lesser number of respondents knew about abdominal pain and diarrhea-vomiting being symptoms of swine flu. This is comparable to other study in Patiala[7] where fever (68%) was believed to be the symptom. In that study 51.5% respondents believed that cough was a symptom and 33.5% believed that runny nose occurs in swine flu. In another study done in Pondicherry[6], symptoms were believed to be fever(89%), cough(67.9%), runny nose(58.2%) apart from abdominal pain, diarrhea, bodyache and headache. A study from Karnataka[8] also shows similar results with fever (82.6%),cough-cold(55.4%), diarrhea-vomiting, body ache and headache being the major symptoms known to participants. But in this study as many as 71% participants believed that breathlessness can occur in swine flu which shows better knowledge of danger signs.

Preventive measures for swine flu known to participants showed interesting results. While 89.8% respondents knew about mask as preventive measure to prevent spread, only 45.3% knew about handwashing as a preventive measure, though it is cheap, simple and effective. Avoidance of crowded places was told by 38.8% participants and 54.6% knew about avoidance of contact with people with cough-cold. This is in contrast to study in Pondicherry[6] where 72.5% knew about handwashing. There 83.9% knew about mask. In a study in Patiala[7] 36.5% knew about handwashing while 60.5% knew about mask. 75% of the respondents who knew about hand washing said that dettol was required for hand washing and only 45% knew that only soap and water is sufficient for hand washing. These findings underline the need for proper IEC activities to promote simple protective measures for swine flu prevention.[9]

The respondents practiced care following exposure to H1N1 positive patient. 56% said they would start prophylactic medication and about half of them practiced hand hygiene maintenance following exposure. 5% falsely believed that they need to stay at home following exposure.

In the present study, 43% respondents knew that vaccine is available for swine flu. This level of awareness is low compared to other studies. A study in Pondicherry showed that 82% of the paramedical staff knew about the vaccine.

Majority of the participants (84%) were scared of swine flu chief causes being fear of death and fast spread. There is a need for mass media campaign to give correct information about the epidemic to avoid panic and hysteria among public in general and high risk paramedical staff in particular.[10]

Conclusion: In the present study hospital, TV and newspapers were the major sources of information. It is therefore essential that these media spread correct information amongst the general population as well as the paramedical workers who are at risk for swine flu. The paramedical staff's confidence and active participation thus remains critical in enforcing any prevention and control strategy against the disease.[11]

Paramedical workers had good knowledge, attitude and practice regarding swine flu in the current study. This should be utilized to spread knowledge and awareness amongst the general population.[12] Focus on key areas like hand washing

with soap and water and availability of vaccine, knowledge regarding which was lacking in the present study, should be immediately addressed.

Also, majority of the participants, despite being knowledgeable about swine flu, were scared of the disease. This represents the mass hysteria and panic amongst the general population regarding the disease and its prevention. It needs to be explained that swine flu, with proper precautions can be prevented and epidemic can be controlled through awareness and correct practices.

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